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SUSAN Y. SOONG
CLERK, U.S. DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN JOSE

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

CV 18 6654

Xiaohua Huang Pro Se

Case Number:

Plaintiff(s),

MR. Xiaohua Huang's complaint to
Nephos Inc. for patent infringement

vs.

Nephos Inc.

Demand for Jury Trial

Defendant(s)

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Plaintiff XIAOHUA HUANG (hereinafter "Huang" or "Plaintiff"), for his complaint against Nephos Inc. (Nephos), alleges as follows:

NATURE OF THE ACTION

1. This is an action for patent infringement arising, under the Patent Law of the United States, 35 U.S.C. § 101, et seq., out of U.S. Patent No. , 6,744,653 (hereinafter the " '653 Patent") issued on June 1, 2004, and 6,999,331 issued on February 14, 2006 (hereinafter the " '331 Patent") to Huang. This action is brought to remedy the infringement of the '653 and '331 Patents by Defendant Nephos (hereinafter "Nephos " or "Defendant"), including but not limited to Nephos' direct and/or contributory patent infringement, as well as Nephos' inducing of others to infringe Huang's patented technology. This action seeks injunctive relief, compensatory damages, and costs against Nephos.

THE PARTIES

2. Huang is an individual residing in 505 Cypress point drive, #272, Mountain View, California 94043.

1 3. Nephos (USA) Inc. has its principal office in 2840 JUNCTION AVENUE, SAN JOSE
2 CA 95134, TEL: 1-408-526-1899. Nephos has developed, made and sold the accused products at
3 issue in this lawsuit in the United States, including within this District.

4 JURISDICTION AND VENUE

5 4. This action arises under the patent laws of the United States, 35 U.S.C. § 101, et seq.
6 This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§
7 1331 and 1338(a). Venue is proper in this District pursuant to 28 U.S.C. §§1391(b) - (c)
8 and 1400(b) in that Defendant has developed, made, sold, offered for sale, distributed, imported,
9 exported, or otherwise commercially exploited in this District products that infringe upon
10 Huang's '653 and '331 Patents.

11 BACKGROUND FACTS

12 5. A true and correct copy of each of the '653 and '331 Patents are attached hereto as
13 Exhibits B and C respectively. The '653 Patent and '331 Patent are valid and owned by Plaintiff
14 as the inventor.

15 6. In Nov. 2000 "Huang" found CMOS Micro Device Inc ("CMOS") to develop Ternary
16 Content Addressable Memory (TCAM) which are used to perform the search function in internet
17 networking router and switches. "Huang" is the owner of "CMOS", "CMOS" is a California
18 corporation and having its office in 900 East Hamilton Ave, Room 100, Campbell, California ,
19 USA.

20 7. In Oct. 2001 "Huang" filed the provisional patent application titled "High-speed and
21 low power content addressable memory (CAM) sensing circuits", some content of which was
22 granted as US patent 6744653 "CAM cells and differential sense circuit for content addressable
23 memory (CAM)" in June 1, 2004 and US patent 6999331 "CAM cells and differential sense
24 circuit for content addressable memory (CAM)" in Feb. 14, 2006.

25 8. From Nov. 2000 to April, 2002, Huang finished the design of ternary content
26 addressable memory (TCAM) with 0.18um TSMC technology which are covered by the '653
27 and '331 Patents. The TCAM designed by Huang is three times faster in speed and consume
28 much less power than the same products in Market at that time. Then Huang shared his patent

1 application with two Cisco executives. They both consider that Huang's patents of TCAM are
2 the best solution among all the vendors and asked Huang to review their next generation
3 TCAM specification and do a feasible design to evaluate the possible product performance.
4 The design data provided by Huang is still better than the best products in market today.
5 '653Patent and '331Patent are the basic fundamentals to design high speed and low power
6 TCAM used in Internet Router and Switches as well as Data Center Switches for Big Data
7 and Cloud Computing up to today. The TCAM designed by Huang provide the example design
8 using those two patents ('653, '331Patent).

9 9. The patented TCAM IP developed by Huang has been highly recognized by the industry.
10 In 2003 Huang was an invited speaker to present his TCAM design at networking symposium
11 at Boston organized by the Industry Authority Linley Group. In 2015 Huang was also a presenter
12 of MEMCON 2015 in Santa Clara convention center to present his patented TCAM design.

13 10. From October, 2014 to November, 2014 Huang and a design team of MediaTek had
14 several meetings to discuss TCAM design, Huang was asked to explain '653 and '331 patent
15 and TCAM design to the TCAM design team of MediaTek, Huang was informed that the
16 TCAM designed by MediaTek used the differential match line sensing method to achieve high
17 speed and low power. Part of that design team became an independent company: Nephos Inc. in
18 2016.

19 11. The claim 1,5,8,12,15 and 17 of '653Patent describe the different ways to achieve the
20 match line differential sensing. The claim 1 and 9 of '331Patent describe the implementation
21 and method of using differential sense amplifier to achieve low voltage swing of match line to
22 reduce the power. Up to now our patents are the only published materials to describe how to
23 design the differential sensing of TCAMs match line which are applicable to real products.
24 The Independent expert report on the infringement of differential match line sensing to '653 and
25 '331 patent is attached on Exhibit D. Nephos Inc. used the TCAM IP designed by Mediatek in
26 its MT3250 chip, Aries Hybrid TOR switch chip, Taurus Family NP8360 chip.

27 **COUNT I: INFRINGEMENT OF U.S. PATENT NO. 6744653**

28 12. Plaintiff refers to and incorporates herein the allegations of Paragraphs 1-11 above.

1 13. On June 1, 2004, U.S. Patent No. 6744653 (the "653 Patent") was duly and legally issued
2 for a "CAM cells and differential sense circuit for content addressable memory (CAM)." A true
3 and correct copy of the '653 patent is attached hereto as Exhibit B. Xiaohua Huang as inventor is
4 the owner of all rights, title, and interest in and to the '653 patent.

5 14. On information and belief, Defendant Nephos has infringed directly, indirectly, literally
6 one or more of the claims of the '653 patent. Defendant Nephos use, sell, import, and/or offer to
7 sell infringing products and/or services, including but not limited to the MT3250 chip, Aries
8 Hybrid TOR switch chip and Taurus Family NP8360 chip that Nephos designed and sold to its
9 customers, which infringe at least claim 1, 5, 8, 12, 15 and 17 of the '653 patent under 35 U.S.C. §
10 271.

11 15. Defendant Nephos' acts of infringement have caused damage to Xiaohua Huang, and
12 Xiaohua Huang is entitled to recover from the Defendant Nephos for the damages sustained by
13 Xiaohua Huang as a result of Nephos' wrongful acts in an amount subject to proof at trial.
14 Nephos' infringement of Xiaohua Huang's exclusive rights under the '653 patent will continue to
15 damage Xiaohua Huang, causing irreparable harm for which there is no adequate remedy at law,
16 unless enjoined by this Court.

17 **COUNT II: INFRINGEMENT OF U.S. PATENT NO. 6999331**

18 16. Plaintiff refers to and incorporates herein the allegations of Paragraphs 1-15 above.

19 17. On Feb. 14, 2006, U.S. Patent No. 6999331 (the "331 Patent") was duly and legally issued
20 for a "CAM cells and differential sense circuit for content addressable memory (CAM)." A true
21 and correct copy of the '331 patent is attached hereto as Exhibit C. Xiaohua Huang as inventor is
22 the owner of all rights, title, and interest in and to the '331 patent.

23 18. On information and belief, Nephos has infringed and continue to infringe directly,
24 indirectly, literally one or more of the claims of the '331 patent. Defendant Nephos manufacture,
25 use, sell, import, and/or offer to sell infringing products and/or services, including but not limited
26 to the MT3250 chip, Aries Hybrid TOR switch chip and Taurus Family NP8360 chip that
27 Nephos designed and sold to its customers, which infringe at least claim 1 of the '331 patent
28 under 35 U.S.C. § 271.

19. Defendant Nephos' acts of infringement have caused damage to Xiaohua Huang, and Xiaohua Huang is entitled to recover from the Defendant Nephos for the damages sustained by Xiaohua Huang as a result of Nephos' wrongful acts in an amount subject to proof at trial. Nephos' infringement of Xiaohua Huang's exclusive rights under the '331 patent will continue to damage Xiaohua Huang, causing irreparable harm for which there is no adequate remedy at law, unless enjoined by this Court.

JURY DEMAND

20. Pursuant to Fed. R. Civ. P. 38(b), Plaintiff requests a trial by jury on all issues.

PRAYER FOR RELIEF

WHEREFORE, Xiaohua Huang prays for the following relief:

- (a). A judgment in favor of Xiaohua Huang that Defendant has infringed and is infringing U.S. Patent Nos. 6744653 and 6999331;
- (b). A judgment that the '653 patent and '331 patent are valid and enforceable;
- (c). Pursuant to Rule 65 of the Federal Rules of Civil Procedure, for a temporary restraining order and for preliminary and permanent injunctive relief enjoining Defendant, its officers, agents, servants, employees, partners, licensees, affiliates, and attorneys, and those persons in active concert or participation with them, including but not limited to Defendant's distributors, resellers, and customers, from further manufacture, sales, offers for sale, other distribution, importation, exportation, or use of any infringing products;
- (d) An accounting for damages resulting from Defendant's infringement of the '653 patent and '331 patent ;
- (e). An assessment of interest on damages;
- (f). A judgment awarding damages to Xiaohua Huang for its costs, disbursements, expert witness fees, and attorneys' fees and costs incurred in prosecuting this action, with interest and as otherwise provided by law;
- (g). For such other and further relief as this Court may deem just and equitable.

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3 Dated: November 1, 2018

Respectfully Submitted

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7 Xiaohua Huang

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10 Exhibit B 6744653 patent

11 Exhibit C 6999331 patent

12 Exhibit D Expert witness report

13 Exhibit E DECLARATION OF XIAOHUA HUANG TO SEND NEPHOS MESSAGE

14 Exhibit F DECLARATION OF XIAOHUA HUANG on The TCAM used in Nephos's chips.

15 Exhibit G Nephos's products.